

**Evaluation of an Alternative Placement Model to address Quality  
in Clinical Learning in Diagnostic Radiography Education**

by

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A thesis submitted in fulfilment of the requirements for the degree of  
Master of Philosophy in Medical Radiation Science

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## STATEMENT OF ORIGINALITY

I hereby certify that the work embodied in the thesis is my own work, conducted under normal supervision. The thesis contains no material which has been accepted, or is being examined, for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository, subject to the provisions of the Copyright Act 1968 and any approved embargo.

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*John Tessier*

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## LIST OF ABBREVIATIONS

AHPRA	Australian Health Practitioner Regulation Agency
AIR	Australian Institute of Radiography
AIHW	Australian Institute of Health and Welfare
ALARA	As Low As Reasonably Achievable
ASI	Approaches to Study Inventory
ASMIRT	Australian Society of Medical Imaging and Radiation Therapy
BMD	Bone Mineral Densitometry
BMedRadSci	Bachelor of Medical Radiation Science
BMRS-DR	Bachelor of Medical Radiation Science Diagnostic Radiography
CPD	Continuing Professional Development
CSU	Charles Sturt University
CT	Computed Tomography
DEEWR	Department of Education, Employment and Workplace Relations
DR	Diagnostic Radiography
HREC	Human Research Ethics Committee
ISRRT	International Society of Radiographers and Radiologic Technologists
MRI	Magnetic Resonance Imaging
MRPBA	Medical Radiation Practice Board of Australia
MRS	Medical Radiation Science
NPDP	National Professional Development Program
NSW	New South Wales
OT	Operating Theatre
PP	Professional Practice
PDY	Professional Development Year
SPP	Supervised Practice Program
UON	University of Newcastle
USyd	University of Sydney

## **PRESENTATIONS ARISING FROM THIS THESIS**

1. Tessier J, Dempsey S, Warren-Forward H. Keeping Placement Safe and Effective. Australian Collaborative Education Network (ACEN) National Conference, Sydney, Australia, September 2016
2. Tessier J, Dempsey S, Warren-Forward H. Multi-placement curriculum. Why compulsory WIL? (Professional Development throughout an Undergraduate Program). 19<sup>th</sup> WACE World Conference on Cooperative and Work Integrated Learning, Kyoto, Japan, August 2015
3. Tessier J, Dempsey S, Warren-Forward H. Building Capacity in Professional Placement of Australian Diagnostic Radiographers. Australian Collaborative Education Network (ACEN) National Conference, Coolangatta, Australia, October 2014
4. Tessier J, Dempsey S, Warren-Forward H. Flexibility in Professional Placement of Australian Diagnostic Radiographers. 18<sup>th</sup> WACE World Conference on Cooperative and Work Integrated Learning, Durban, South Africa, June 2013
5. Tessier J, Dempsey S, Warren-Forward H. Professional Placement- the Connection between the Profession and Universities. 9<sup>th</sup> Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT), Sydney Convention and Exhibition Centre, Australia, April 2012
6. Tessier J, Dempsey S, Warren-Forward H. Professional Student Placement in Diagnostic Radiography (Students and their Supervisors). 12<sup>th</sup> Australasian Association of Educators in Medical Radiation Science Conference, Adelaide, Australia, July 2011
7. Tessier J, Dempsey S, Warren-Forward H. Assessing the Advantages and Disadvantages between Full Time and Day Release Professional Placement for Diagnostic Radiography Students. 8<sup>th</sup> Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT), Adelaide, Australia, April 2011
8. Tessier J, Dempsey S, Warren-Forward H. Assessing the Effects on Learning and Experience for Day Release Professional Placement in Diagnostic Radiography. International Society of Radiographers and Radiologic Technologists World Congress, Gold Coast, Australia, September 2010
9. Tessier J, Dempsey S, Warren-Forward H. Development and Implementation of a Flexible Model for Professional Placements within Diagnostic Radiography at the University of Newcastle. Combined Scientific Meeting, Brisbane, Australia, October 2009
10. Tessier J, Dempsey S, Warren-Forward H. Piloting of an Innovative Model of Professional Placement for Diagnostic Radiography Students at the University of Newcastle. Australian Institute of Radiography Tasmanian State Branch Education Seminar, Port Arthur, Australia, August 2009

11. Tessier J, Dempsey S, Warren-Forward H. The Initial Analysis of an Innovative Model of Professional Placement for Diagnostic Radiography Students at the University of Newcastle. 11<sup>th</sup> Australasian Association of Educators in Medical Radiation Science Conference, Brisbane, Australia, July 2009

The abstracts from each conference are presented in Appendix 1.

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## **AWARDS ARISING FROM THIS RESEARCH**

1. University of Newcastle, Faculty of Health and Medicine Work Integrated Learning (WIL) 2015 Staff Member of the Year
2. 2014 WIL Industry Hall of Fame Inductee- Hunter Imaging Group (research partner in this project)
3. University of Newcastle, Faculty of Health and Medicine Work Integrated Learning (WIL) 2011 Staff Member of the Year

## **ABSTRACT**

Professional placement is a vital and compulsory component in the training of health professionals. Professional practice assists students to demonstrate that they have met the national registration/accreditation standard required as an entry level practitioner in their field of health and medicine. Therefore the goal of any health professional program is to provide high quality professional placements to all students.

This research explores the professional placement component of the undergraduate diagnostic radiography program at the University of Newcastle, Australia. The origins of the research developed from a concern that with significant increases in student enrolments into the diagnostic radiography program that the long-standing traditional full-time block placement format would not be able to support enough high quality placements. The aim of the research reported in this thesis was to investigate an alternate placement model for diagnostic radiography students at the University of Newcastle, which provides a quality placement experience for an increasing number of students commencing the program.

An action research methodology was used to bring together students, clinical supervisors and academic staff, who worked together to develop, implement, assess and refine a new part-time professional placement model. Direct communication, purposefully designed questionnaires, focus groups, structured interviews and conference presentations were used to gather input for the research. Multiple studies and analyses were undertaken including a pilot study examining the feasibility of an alternate placement format, and studies focusing on student and clinical supervisor perspectives of the developing part-time placement model. The dynamic and cyclic nature of this research was made possible by the action research methodology.

In summary, an alternate part-time placement format was developed and embedded within the program. The part-time placement option produced benefits for both students and supervisors. Benefits included a reduced financial burden for students, an increased ability for students to undertake a placement pattern that supported their personal lifestyle limitations (e.g. caring and living arrangements), as well as greater rostering

flexibility for supervisors. The new placement option increased the likelihood of students receiving a preferred placement site.

This research revealed a greater appreciation and understanding of not only the placement period, but also the factors that contribute to an effective placement. Multiple phases of research included adjustments to placement formats and the evaluation of these modifications. A pilot study was used during the initial phase of research with feedback obtained from students and supervisors. This initial phase confirmed that an alternate placement format was possible without detriment to students or placement sites. The second and fourth phases of research concentrated on the student perspective using purpose-built questionnaires, focus groups and structured interviews. The results highlighted areas that could impede the performance of the student as well as areas that could enhance student performance. Similarly phase three, which focused on the perspective of the placement supervisors, provided input that highlighted organizational changes that benefitted both the placement sites and the students. The findings of this research should be of interest to all contributors to the education of health professionals and have implications for future research in the area of professional placement.